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EXAMINER	
AGUSTIN, PETER VINCENT	
ART UNIT	**PAPER NUMBER**
2652	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/989,414	PARK, SANG ON	
	Examiner	Art Unit	
	Peter Vincent Agustin	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *13-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are now pending, with claims 13-20 withdrawn from further consideration for being drawn to a non-elected invention.

Election/Restrictions

2. This application contains claims 13-20 drawn to an invention nonelected with traverse in the reply dated May 3, 2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru et al. (US 5,107,478) in view of Yamakawa et al. (US 5,682,372).

In regard to claim 1, Tamaru et al. disclose a tilt controlling method comprising the steps of: detecting a track of a focus error when a focus is on (column 5, lines 46-53: note "servo system" and "focus drive"); and calculating a variation per track of the focus error to control the tilt using the variation (see also patent claim 3, where a detection means produces a detection signal based on a focus drive DC voltage, and a servo means controls a tilt means in response to the detection signal). However, in regard to claim 1, Tamaru et al. do not disclose: detecting a track of a focus error "for maximizing an RF signal or minimizing a jitter"; and detecting the maximum value and the minimum value of the focus error.

Yamakawa et al. disclose applying focus servo at a point where an RF signal is maximum or jitter is minimum (column 3, lines 44-47); and setting a focus-balance coefficient K such that an RF signal is maximized or jitter is minimized (column 5, lines 25-38); and detecting the maximum value and the minimum value of a focus error (column 8, lines 36-41: "the positive peak and the negative peak of the focus error voltage").

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have detected the track of the focus error of Tamaru et al. where an RF signal is maximum or jitter is minimum as suggested by Yamakawa et al.; and to have detected the maximum value and the minimum value of the focus error of Tamaru et al. as suggested by Yamakawa et al, the motivation being to obtain optimum focus, thereby optimizing reading from the optical disk (see column 5, lines 10-12).

In regard to claim 2, Tamaru et al. disclose the step of calculating a variation per track of the maximum value and the minimum value of the focus error (column 5, lines 46-53: "focus drive") to detect a normalized DC component. Note that the focus drive signal inherently has a maximum value and a minimum value, and the focus drive signal as a whole produces a "focus drive DC voltage", i.e., the claimed "variation per track of the maximum value and the minimum value" and the claimed "normalized DC component".

In regard to claim 3, Tamaru et al. disclose (column 5, lines 46-61) that a tilt reference ("the distance between the optical disc D and the optical pickup 25" of lines 47-48) is varied as much as the variation per track to control the tilt (lines 58-60: note "so that the value of the focus drive DC voltage.....will become equal to a reference voltage"; and also column 6, lines 8-12: "the servo system 40 supplies a control voltage based on the difference between the focus drive

DC voltage and a reference voltage to the tilt drive motor 30 to perform the servo control"; and patent claim 3: "responsive to the detection signal for controlling the tilt means to maintain the distance between the optical pickup and the optical disc constant").

In regard to claim 4, Tamaru et al. disclose the step of detecting a DC component using the maximum value and the minimum value of the focus error (column 5, lines 46-53: "focus drive") to control the tilt, wherein the maximum value and the minimum value of the focus error can be applied separately or at the same time. See Note for claim 2 above. The "focus drive DC voltage" is considered as a whole for tilt control, i.e., the claimed "can be applied at the same time". Note that the claimed "can be applied separately" is in the alternative form, and therefore does not need to be met by the reference.

5. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru et al. & Yamakawa et al. as applied to claim 1 above, and further in view of Baba (US 5,808,984).

For a description of Tamaru et al. & Yamakawa et al., see the rejections above. Furthermore, in regard to claim 5, Tamaru et al. & Yamakawa et al. disclose the steps of calculating the variation per track of the focus error (see claim 1 above), and normalizing the variation per track of the focus error to control the tilt (see claim 1 above). However, in regard to claim 5, Tamaru et al. & Yamakawa et al. do not disclose the steps of detecting a surface vibration from the trembling of a disk; and normalizing the surface vibration to control the tilt.

Baba discloses detecting a vibration of an actuator and using this vibration to detect tilt (column 9, lines 8-12). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have detected the tilt of Tamaru et al. & Yamakawa et al.

using a vibration of an actuator as suggested by Baba, the motivation being to perform recording and reproduction with high reliability (column 1, lines 59-65).

It is noted that while Baba discloses detecting a vibration of an actuator to detect tilt, Baba does not disclose "controlling" the tilt, i.e., compensating the tilt in response to the detection result. However, as discussed above, Tamaru et al. & Yamakawa et al. disclose this missing feature; therefore, the claimed "normalizing vibration to control the tilt" would be the inherent result of the noted combination of references.

Baba discloses that the vibration results from the actuator. Baba does not disclose that the vibration results from the "trembling of a disk" as required by claim 5. Therefore, Tamaru et al. & Yamakawa et al. in further view of Baba do not disclose the claimed "detecting a surface vibration from trembling of a disk". However, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have detected the vibration of Tamaru et al., Yamakawa et al., and Baba from trembling of a disk because the applicant has not disclosed that detecting a surface vibration from trembling of a disk provides an advantage, is used for a particular purpose, or solves a stated problem, and one of ordinary skill in the art would have expected the applicant's invention to perform equally well with either the claimed detecting a surface vibration from trembling of a disk or detecting vibration of the actuator as taught by Tamaru et al., Yamakawa et al., and Baba, because both techniques perform the same function of detecting/controlling tilt.

In regard to claim 6, Tamaru et al. disclose that a normalized value (column 5, line 54: "focus drive DC voltage") and a reference value ("the distance between the optical disc D and

the optical pickup 25" of column 5, lines 47-48) due to tilt initialization are considered to control the tilt.

In regard to claim 7, Tamaru et al. does not disclose that the reference value due to tilt initialization is obtained from an FE track at a point where an RF envelope peak has the maximum value or a jitter has the minimum value.

Yamakawa et al. disclose applying focus servo at a point where an RF envelope peak has the maximum value or a jitter has the minimum value (column 3, lines 44-47). It would have obtained the reference value due to tilt initialization of Tamaru et al. at a point where an RF envelope peak has the maximum value or a jitter has the minimum value as suggested by Yamakawa et al., the motivation being to obtain optimum focus, thereby optimizing reading from the optical disk (see column 5, lines 10-12).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru et al., Yamakawa et al., and Baba as applied to claim 5 above, and further in view of Jobs (US 6,215,747).

For a description of Tamaru et al., Yamakawa et al., and Baba, see the rejection above. However, in regard to claim 8, Tamaru et al., Yamakawa et al., and Baba do not disclose that a normalized value is proportional to time in a case of constant linear velocity.

Jobs discloses (please refer to column 3, lines 19-25) a normalized value ("location of a data file" of line 23) proportional to time (line 22) in a case of constant linear velocity (line 22). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have provided a normalized value proportional to time in a case of constant linear velocity to the method of Tamaru et al., Yamakawa et al., and Baba, as suggested by Jobs, the

motivation being to optimize access times of different regions of a disk (well known advantage of the teachings in column 3, lines 26-33).

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru et al., Yamakawa et al., and Baba as applied to claim 5 above, and further in view of Van Den Enden (US 6,452,897).

For a description of Tamaru et al., Yamakawa et al., and Baba, see the rejection above. However, in regard to claim 9, Tamaru et al., Yamakawa et al., and Baba do not disclose that a normalized value is proportional to length in a case of constant linear velocity.

Van Den Enden discloses (please refer to column 3, lines 62-66) a normalized value ("the radial position" of line 65) is proportional to length (line 64) in a case of constant angular velocity (line 63). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have provided a normalized value proportional to length in a case of constant angular velocity to the method of Tamaru et al., Yamakawa et al., and Baba, as suggested by Van Den Enden, the motivation being to enable a more reliable and less complex detection of headers in an optical disc (column 2, lines 6-8).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al. (US 5,001,690) in view of Yamakawa et al., and further in view of Smid et al. (US 4,712,205).

In regard to claim 10, Kamiya et al. disclose a tilt controlling method (see title) comprising the step of: wobbling a tilt driving block (figure 1, element 48 & 50) at a certain frequency (also note column 4, lines 3-27, which describe periodically judging whether an RF level has increased or decreased; determining the driving direction of tilt control at each judgment; and periodically performing tilt driving in either direction, i.e., the claimed

"wobbling"; also note the signals on Figure 15). However, in regard to claim 10, Kamiya et al. do not disclose the steps of: obtaining an FE track at a point where a RF signal has the maximum value; and normalizing the detected FE track.

Yamakawa et al. disclose obtaining an FE track at a point where a RF signal has the maximum value (column 3, lines 44-47). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have added the step of obtaining an FE track at a point where a RF signal has the maximum value taught by Yamakawa et al. to the method of Kamiya et al., the motivation being to obtain optimum focus, thereby optimizing reading from the optical disk (see column 5, lines 10-12).

Kamiya et al. in view of Yamakawa et al. do not disclose the step of normalizing the detected FE track.

Smid et al. disclose normalizing a focus error signal (column 4, line 66 thru column 5, line 6). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have added the normalizing step of Smid et al. to the method of Kamiya et al. and Yamakawa et al., the motivation being to prevent undesired effects of contamination of optical elements and influence of tracking errors.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takamine et al. (US 5,805,543) in view of Suzuki (JP 01307933 A).

In regard to claim 11, Takamine et al. disclose a tilt controlling apparatus (Figure 16) of an optical record medium (1), comprising: a RF and servo error producing unit (inherent: note output RF and column 7, lines 23-27, which state that the light receiving element outputs RF and servo signals) for producing RF and servo error signals from an electric signal outputted from an

optical pickup unit (2); a servo controlling unit (7, 8, 4, 5, 6B, 12 & 90) having a tilt error detecting and controlling block to produce DC and AC values (TLE, see also Figure 17A, and column 16, lines 56-61, which state that signal TLE is an AC tilt component superimposed on a DC tilt servo component) about the tilt initialization and an optical disk; and a servo driving unit (10) for controlling said optical pick-up unit in response to a signal of said servo controlling unit. Furthermore, in regard to claim 11, Takamine et al. disclose that the tilt error detecting and controlling block receives an RF signal (output of element 2). However, in regard to claim 11, Takamine et al. do not disclose that the tilt error detecting and controlling block receives focus error signals outputted from said RF and servo error producing unit to produce the DC values about the tilt initialization.

Suzuki discloses receiving a focus signal to produce DC values about tilt initialization (see purpose and first three lines of constitution). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have received the focus error signal of Takamine et al. to produce DC values about tilt initialization as suggested by Suzuki, the motivation being to obtain a reproducing signal of high accuracy without being influenced by a surface state of an optical disk.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takamine et al. & Suzuki as applied to claim 11 above, and further in view of Yamakawa et al.

For a decription of Takamine et al. & Suzuki, see the rejection above. Furthermore, in regard to claim 12, Takamine et al. and Suzuki disclose that said tilt error detecting and controlling block includes a tilt controlling block for controlling the tilt using the RF signal and an FE signal (see claim 11 above; note that this would be an inherent result of the above noted

combination). However, in regard to claim 12, Takamine et al. and Suzuki do not disclose that said tilt error detecting and controlling block includes a RF peak detecting block for detecting the peak of an RF envelope; and a detecting block for detecting the maximum and minimum values of a focus error per one rotation of a disk.

Yamakawa et al. disclose a RF peak detecting block (inherent from column 3, lines 44-47) for detecting the peak of an RF envelope; and a detecting block (inherent from column 8, lines 36-41) for detecting the maximum and minimum values of a focus error. It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have added the RF peak detecting block and the detecting block of Yamakawa et al. to the tilt error detecting and controlling block of Takamine et al. and Suzuki, the motivation being to obtain optimum focus, thereby optimizing reading from the optical disk (see column 5, lines 10-12).

Takamine et al. and Suzuki in further view of Yamakawa et al. are silent to whether the maximum and minimum value of the focus error are detected "per one rotation" of a disk. However, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have detected the maximum and minimum value of the focus error of Takamine et al., Suzuki, and Yamakawa et al. per one rotation of a disk because the applicant has not disclosed that this limitation provides an advantage, is used for a particular purpose, or solves a stated problem, and one of ordinary skill in the art would have expected the applicant's invention to perform equally well with either detecting the maximum and minimum value of the focus error taught by Takamine et al., Suzuki, and Yamakawa et al. or the claimed detecting the

maximum and minimum value of the focus error "per one rotation" of a disk, and adding this limitation would have been an obvious matter of design choice.

Response to Arguments

11. Applicant's arguments filed July 18, 2005 have been fully considered but they are not persuasive.

a. In response to Applicant's argument that Tamaru does not disclose tracking a focus error for maximizing an RF signal or maximizing jitter when a focus is on (page 22, last paragraph), the Examiner acknowledged this deficiency on page 6, first paragraph, lines 6-8 of the previous Office Action. In order to overcome this deficiency, the Yamakawa et al. reference was relied upon as a secondary reference (see page 6, paragraphs 2 & 3).

b. In response to Applicant's argument that Tamaru does not disclose calculating a variation per track of the focus error to control the tilt using the variation (page 22, last paragraph), the Examiner disagrees. Tamaru discloses this feature on claim 3, where a detection means produces a detection signal based on a focus drive DC voltage, and a servo means controls a tilt means in response to the detection signal.

c. On page 23, last paragraph, it is noted that "Applicant does not understand this rejection to the extent that the Office Action does not make it clear whether Takamine is being applied as an alternative to, or in conjunction with, Yamakawa. Clarification is required." In response to this, the Applicant is directed to page 5, item 12 of the previous Office Action, which clearly states that the claims are rejected over Tamaru et al. in view of Yamakawa et al., i.e., the rejection is based on the combination of two references.

While the Yamakawa et al. reference was used to overcome the deficiencies of Tamaru et al., the Yamakawa et al. patent was silent regarding the advantage of detecting maximum and minimum values of the focus error. The Takamine et al. reference was relied upon for **evidentiary support** of the Examiner's obviousness statement, i.e., in order to prove that it is well known in the art that the best focus position is obtained where an RF signal is maximum or jitter is minimum.

d. On page 24, paragraph 3, the Applicant argues that "Yamakawa is not directed to controlling tilt at all and the Office Action contains no objective factual evidence that a skilled worker would be motivated to apply the focus control servo of Yamakawa to control the tilt of Tamaru." This argument is not persuasive. Whether or not Yamakawa is directed to controlling tilt is irrelevant. The Tamaru et al. reference was relied upon to teach the features directed to controlling the tilt using the focus error. The Yamakawa reference was relied upon to show that the claimed details of the **focus error** measurement would have been obvious to one of ordinary skill in the art.

e. On page 24, paragraph 4, the Applicant argues that "Takamine is not directed to controlling tilt...". This argument is not persuasive for the same reasons noted in item d above. Furthermore, as noted in item c above, the Takamine et al. reference was relied upon for evidentiary support, and not as an alternative for a secondary reference in the rejection.

f. On page 24, last paragraph, the Applicant argues that none of the applied references discloses "calculating a variation per track of the focus error" and "to control

the tilt using the variation". The Examiner disagrees. As noted in item b above, Tamaru et al. disclose these features.

g. On page 25, first paragraph, the Applicant argues that Yamakawa and Takamine have no disclosure of calculating a variation per track of the focus error. This is irrelevant because the primary reference, Tamaru et al., was relied upon as disclosing this feature.

h. On page 25, first paragraph, the Applicant argues that neither of the two secondary references uses their focus error signal to control the tilt. As noted in item d above, Whether or not Yamakawa is directed to controlling tilt is irrelevant. The Tamaru et al. reference was relied upon to teach the features directed to controlling the tilt using the focus error. The Yamakawa reference was relied upon to show that the claimed details of the **focus error** measurement would have been obvious to one of ordinary skill in the art. Furthermore, in regard to Takamine et al., this reference was relied upon for evidentiary support, and not as an alternative for a secondary reference in the rejection.

i. On page 25, last paragraph, the Applicant argues that "simply because a signal may have a maximum and a minimum value does not mean that such values are detected and used to calculate the variation per track of the maximum value and minimum value of the focus error". This argument is not persuasive. Claim 1 does not recite that the maximum and minimum values are used to calculate the variation per track of the maximum value and minimum value of the focus error.

j. On page 26, paragraph 2, the Applicant argues that simply producing a focus drive DC voltage does nothing about calculating the variation per track of the maximum

value and minimum value of focus error. This argument is not persuasive for the same reasons noted in item i above.

k. On page 26, paragraph 4, the Applicant argues that Tamaru never mentions "variation per track" of anything, let alone "variation per track of focus error". Furthermore, the Applicant argues that "these are positively recited features of the claims that cannot be ignored..." In response to this, it should be noted that these features were not ignored. The recitation "variation per track of the focus error" is vague, and therefore, has been given the broadest reasonable interpretation consistent with the Applicant's disclosure. The Applicant's disclosure describes that an FE DC component is detected by calculating variation per track of peak-to-peak values of the FE (page 11, lines 8-12); and that a DC or tilt reference is varied as much as this variation to control tilt (page 11, lines 13-15); and that a spindle motor is operated to detect FE DC variation per one rotation as variation per track (page 13, lines 7-8). On page 13, lines 20-22, the Applicant appears to define "variation per track" as "the focus error variation about a radial movement component", which again is vague. Therefore, with the absence of a clear definition in the Applicant's disclosure, and as best interpreted by the Examiner in light of the Applicant's disclosure, the claimed "variation per track of the focus error" has been interpreted as a DC component of a focusing signal, or more simply as a focusing signal. Tamaru et al. satisfies this claimed feature as noted in item b above.

l. On page 27, paragraph 2, the Applicant argues that it is not clear whether or not the Takamine reference is part of this rejection. As noted in item c above, the Takamine

et al. reference was relied upon for evidentiary support, and not as an alternative for a secondary reference in the rejection.

m. On page 27, paragraph 3, the Applicant argues that Baba is not applied to cure the deficiencies in the Tamaru-Yamakawa reference combination and that the rejection of claims 5-7 is improper. This argument fails to comply with 37 CFR 1.111(b) because it amounts to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

n. On page 27, last paragraph, the Applicant argues that the Office Action does not clearly state whether the Matsubayashi et al. reference is applied in the alternative to, or in conjunction with, Baba. In response to this, the Applicant is directed to page 8, item 13, first paragraph of the previous Office Action, which clearly states that claims 5-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamaru et al. & Yamakawa et al. and further in view of Baba, i.e., the rejection is based on the combination of three references. The Matsubayashi et al. reference was merely relied upon for **evidentiary support** of the obviousness statement provided by the Examiner. It is not a "fourth reference" applied in the rejection.

o. On page 28, paragraph 2, the Applicant argues that "the assertion that both Baba and Matsubayashi control tilt is incorrect". This argument is not persuasive. First, as noted in item n above, the Matsubayashi reference is not applied in the rejection. Second, page 9, second to the last line of the first paragraph indicates "detecting/controlling", which means "detecting or controlling". Third, the rejection is based on a combination of

references; therefore, it is improper for the Applicant to attack each reference individually.

p. On page 28, paragraph 2, the Applicant argues that "there is no adjustment of the tilt in either applied reference". This argument is not persuasive. Whether or not there is an adjustment of tilt disclosed in either reference is irrelevant. The Tamaru et al. reference was relied upon to reject the claimed features directed to tilt adjustment. The Baba reference was relied upon to show using vibration to detect tilt. The combination of references as applied would inherently result with an adjustment of tilt (see page 8, last two paragraphs thru page 9, paragraph 1 of the previous Office Action).

q. On page 28, paragraph 3, the Applicant argues that the speculation that normalizing vibration to control tilt would be the inherent result of combining the references is incorrect because Yamakawa does not disclose controlling tilt. The Examiner disagrees for the same reasons noted in item c above.

r. On page 28, paragraph 4, the Applicant argues that "the asserted combination of references is also improper because the Office Action fails to provide objective factual evidence of proper motivation to modify the improper Tamaru-Yamakawa reference combination as suggested in view of Baba". The Examiner disagrees. Objective factual evidence was provided on page 8, last two paragraphs thru page 9, paragraph 1 of the previous Office Action.

s. On page 28, paragraph 5, the Applicant argues that "Tamaru already has a simple method of controlling tilt...and shows no need to provide yet another method of detecting and compensating for tilt". This fails to comply with 37 CFR 1.111(b) because it amounts

to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

t. On page 28, last paragraph, the Applicant argues that "Baba does not disclose a method of controlling tilt". This argument is not persuasive for the same reasons noted in item p above.

u. On page 29, first paragraph, the Applicant argues that "Baba teaches just the opposite of Tamaru and actually teaches away from compensating for tilt". This argument is not persuasive for the same reasons noted in item p above.

v. On page 29, paragraph 2, the Applicant argues that Matsubayashi fails to control tilt. This argument is not persuasive. As noted in item n above, the Matsubayashi et al. reference was merely relied upon for evidentiary support of the obviousness statement provided by the Examiner and was not applied in the rejection.

w. On page 29, paragraph 3, the Applicant argues that "it is improper for an Examiner to pluck certain features from a reference while ignoring others in the same reference" and that "it is improper to ignore Baba's teaching and Matsubayashi's teaching of not controlling tilt when tilt is detected". These arguments are not persuasive for the same reasons noted in item p above.

x. On page 29, paragraph 4, the Applicant argues that "Tamaru's DC voltage is not such a normalized value". The Applicant's disclosure does not describe "normalizing the variation per track of the focus error and the surface vibration to control the tilt". This

lack of description also renders the recitation indefinite. Therefore, the recitation has been given the broadest reasonable interpretation consistent with the Applicant's disclosure.

y. In response to Applicant's arguments on page 30, paragraph 2, the Applicant is directed to items c & n above.

z. On page 30, paragraph 3, the Applicant argues that "Jobs is not applied to cure the deficiencies in the Tamaru-Yamakawa-Baba reference combination" and that "this rejection of claim 8 is improper". This argument fails to comply with 37 CFR 1.111(b) because it amounts to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

aa. On page 30, paragraph 4, the Applicant argues that "Jobs is directed to organizing data on a CD-ROM in order to increase data retrieval rate and is not directed to controlling tilt". This argument is not persuasive. Whether or not Jobs is directed to controlling tilt is irrelevant. The Tamaru et al. reference was relied upon to reject the claimed features directed to controlling tilt. Jobs was relied upon to show that the specific features of claim 8 would have been obvious to one of ordinary skill in the art.

bb. On page 30, paragraph 4, the Applicant argues that Van Den Enden is not directed to controlling tilt. This argument is not persuasive. Whether or not Van Den Enden is directed to controlling tilt is irrelevant. The Tamaru et al. reference was relied upon to reject the claimed features directed to controlling tilt. Van Den Enden was relied upon to show that the specific features of claim 9 would have been obvious to one of ordinary skill in the art.

cc. On page 32, paragraph 4, the Applicant argues that Kamiya does not disclose wobbling a tilt drive block "at a certain frequency". The Examiner disagrees. The claimed "certain frequency" is a broad term, and is read to correspond to any frequency value, and therefore is understood to be anticipated by the Kamiya reference.

dd. On page 32, paragraph 5, the Applicant argues that Kamiya does not use a focus error signal to control tilt. This argument is not persuasive since the Examiner acknowledged this deficiency in page 11, item 16 of the previous Office Action. The secondary references were relied upon to overcome this deficiency.

ee. In response to Applicant's arguments on page 33, paragraph 3, the Applicant is directed to items d & dd above.

ff. On page 35, paragraph 2, the Applicant argues that Suzuki does not mention tilt initialization or producing DC and AC values about the tilt initialization and about an optical disk. This argument in not persuasive. The Takamine et al. reference was relied upon for teaching producing DC and AC values about the tilt initialization and an optical disk (see page 13, first paragraph). The Suzuki reference was relied upon to overcome the deficiency of Takamine et al., i.e., receving a focus signal to produce DC values about tilt initialization.

gg. On page 35, paragraph 4, the Applicant argues that the Office Action has not provided objective factual evidence of proper motivation to modify Takamine in view of Suzuki. The Examiner disagrees. Page 13, paragraph 2 of the previous Office Action provides a statement of motivation, i.e., to obtain a reproducing signal of high accuracy without being influenced by a surface state of an optical disk.

hh. On page 37, paragraph 5, the Applicant argues that the Office Action has not made out a prima facie case of obviousness of the invention recited in claim 12. The Examiner disagrees. As recited in MPEP § 2144.04, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Since the Applicant has not disclosed that the claimed limitation (detecting values "per one rotation" of a disk) provides an advantage, is used for a particular purpose, or solves a stated problem, this is deemed obvious because the only difference between the prior art and the claimed invention is the frequency of detecting the maximum and minimum value of the focus error, which could have been, for example, per two rotations, twice per one rotation, or "per one rotation", as claimed. Since selection of either one would not cause the claimed device to perform differently than the prior art device, the claimed device in claim 12 is not patentably distinct from the prior art device. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984).

12. On page 34, last paragraph of the arguments, the Applicant notes that the Examiner is relying on an English language abstract of Suzuki and has not provided a translation of the entire Suzuki reference, which is in the Japanese language. The Examiner has requested a certified translation of this document. Due to time constraints, however, the certified translation will not be provided with this Office Action. For the time being, the Applicant is directed to Tamaru et al. (US 5,107,478) which is a United States publication of the Japanese application 63-140204 noted in the front page of the Suzuki reference. Tamaru et al. is directed to the same invention as Suzuki, and therefore, is considered a substantial English equivalent.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Vincent Agustin
Art Unit 2652

BRIAN E. MILLER
PRIMARY EXAMINER